

Project name:
Building N144 USGS Bay 1 Project**Project reference:**
60638907.0002**From:**
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February 2, 2022**To:**
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NASA Ames Research Center
Moffett Field, CA 94035-1000**CC:**
Kathy Kwong, AECOM

Memo

Subject: Section 106 Consultation on Building N144 USGS Bay 1 Project, NASA Ames Research Center, Moffett Field, Santa Clara County, California

1. Introduction

The National Aeronautics and Space Administration (NASA) Ames Research Center (ARC) proposes the Building N144 U.S. Geological Survey (USGS) Bay 1 Project (project or undertaking) at ARC, Moffett Field, Santa Clara County, California. As the lead federal agency, NASA is responsible for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (54 United States Code 300101 et seq.), which requires federal agencies to take into account the effects of their activities and programs on historic properties, and its implementing regulations in 36 Code of Federal Regulations (CFR) Part 800. The purpose of this memorandum is to provide necessary information for compliance with Section 106, including a description of the undertaking and the Area of Potential Effects (APE), the methodology used to identify and evaluate historic properties within the APE, a description of the affected historic properties, and an assessment of potential effects resulting from the undertaking.

1.1 Project Location

The project is located within the NASA Ames Campus at ARC, Moffett Field, Santa Clara County, California (**Appendix A; Figures 1 and 2**). The project is limited to interior and exterior improvements to Building N144.

1.2 Project Personnel

This study was conducted by cultural resources professionals who meet the Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738). Trina Meiser, M.A., Senior Architectural Historian, served as the Principal Investigator; Jennifer Redmond, M.A., RPA, addressed archaeological resources; Tim Wolfe provided mapping; and Kirsten Johnson, M.A., served as the lead verifier of this document.

2. Description of the Undertaking

This project involves interior and exterior alterations to the Bay 1 portion of Building N144, which is a warehouse divided into four bays (**Photograph 1**). The interior alterations will include architectural; mechanical, engineering, and plumbing (MEP); fire protection; accessibility; telecommunications; and structural component retrofit

upgrades to prepare the space for continued storage and office use. New restrooms and storage rooms will be installed.



Photograph 1. Building N144, northwest corner, view facing southeast

Exterior alterations will include removal and replacement of exterior utility rollup and man doors, and replacement of stairs and guardrails on the east and west sides of Bay 1 (**Photograph 2**). Two antennae will be mounted on steel pipe masts at the northwest corner of the roof, one approximately 3' high and the other 4' high. Exterior alterations will also include the removal of two existing asphalt ramps with curbs for the construction of new forklift ramps and reinforced concrete pavement with pads on grade for a new enclosed prep area canopy, generator, and compressor within an existing secure, fenced area at the north side of Bay 1 (**Photographs 3 to 5**). The existing fence and gates will remain. The new canopy will be constructed of metal (**Appendix B – Select Project Drawings**).

Additionally, a section of pavement will be removed to expose the existing sewer line for connection to new interior plumbing at the northwest corner of Building N144 (see **Photograph 1**), and another section of pavement will be removed for telecommunications and utility tie-ins to existing buried lines from the north side of the building. The depth of excavation for the concrete ramps and pads will be up to approximately 2' below grade and the sewer cleanout and utility tie-ins will be approximately 4' below grade. Other exterior site improvements will include restriping parking spaces and signage. See Appendix B for select project drawings.



Photograph 2. Rollup door and stairs at west loading dock, view facing east



Photograph 3. Enclosed area at north side of Building N144 Bay 1, view facing southwest



Photograph 4. Enclosed area at north side of Building N144, view facing south



Photograph 5. Existing ramp to utility rollup door on north side of Building N144, view facing south

3. Area of Potential Effects

The APE is defined to address both direct and indirect impacts on historic properties. The APE encompasses areas that may be affected by both temporary and permanent construction activities (see **Appendix A; Figure 3**). All project activities will occur at Building N144. Below-grade activities include limited disturbance to remove existing pavement and preparation for new concrete pavement, forklift ramps, and pads at the north side of Building N144 and sewer cleanout and connection. These areas are included in the APE for direct impacts, with a vertical APE of approximately 2' maximum depth for the concrete pavement and 4' maximum depth for sewer and other utility tie-ins. Visual impacts resulting from the exterior alterations pose no impacts to the setting of potential nearby historic properties due to the in-kind nature or screened visibility of the proposed project; therefore, the APE is limited to Building N144 and the exterior areas where project activities will occur.

4. Identification of Historic Properties

Historic properties are defined as any district, site, building, structure, or object that is included in or is eligible for listing in the NRHP. The following sections address the methodology and efforts to identify historic properties in the APE.

4.1 Archaeological Resources

The land that comprises ARC has changed dramatically since the early twentieth century from predominantly agricultural use to a military airfield installation beginning in 1931 and aeronautical research and development beginning in 1939. Extensive surface disturbance occurred throughout ARC with grading and fill to create the airfield and the campuses with hundreds of buildings and structures to support operations.

A comprehensive investigation of previous archaeological studies at ARC was completed in 2017 (AECOM 2017). This investigation involved a desktop survey of archival resources and a geoarchaeological assessment of the entire ARC site and included an assessment of archaeological sensitivity and the potential for buried archaeological resources. In a letter dated June 22, 2017, the State Historic Preservation Officer (SHPO) found the study results acceptable as a baseline for future investigation and treatment of archaeological resources at ARC and as a reference for professionally qualified staff for future undertakings (NASA_2015_0928_001). The study identified areas of heightened prehistoric and historic-period archaeological sensitivity and also concluded that there is low potential for more deeply buried prehistoric archaeological resources across ARC.

A review of the 2017 investigation indicates that the proposed work is in an area of low archaeological sensitivity (see **Appendix A; Figure 4**) and was not identified as sensitive for either prehistoric or historic-period resources. Two areas of heightened historic-period archaeological sensitivity associated with the nineteenth century Bailey and Frink farms are within 1,000 feet, but the APE was not identified as sensitive, and it is not anticipated that resources associated with the farms would be within the APE. Ground disturbance for the undertaking would be limited to up to 2' deep for the removal of existing concrete and compaction for new reinforced concrete pavement and 4' deep for sewer and utility tie-ins. Trenching to install utilities would also occur; maps of existing utilities at the location indicate extensive prior disturbance. It is known that the amount of prior subsurface disturbance in this area is high so the potential for previously unidentified, intact resources is low.

The portion of the APE where ground disturbance will occur is currently paved and unpaved. A cursory inspection of the unpaved areas was conducted on July 28, 2021. This area was not identified as archaeologically sensitive during the 2017 study and no archaeological resources were identified during the site visit.

4.2 Architectural Resources

This study identified one building, Building N144, in the APE (Table 1).

Table 1. Architectural Resources in the APE

Resource	Date	Eligibility Status	Effects Analysis
Building N144 – General Warehouse	1952	Not eligible	No Historic Properties Affected

Building N144 is a warehouse located along the east side of Walcott Avenue. The one-story warehouse has a concrete slab foundation, a steel-frame structural system, corrugated cement-asbestos siding, and a low-pitched gable roof. It is 20 bays long (four interior bays) with concrete firewalls between every five bays, and two bays wide. The bays contain regularly spaced access openings, primarily with roll-up steel utility doors. There are also some glazed doors and metal sliding windows. The majority of roll-up steel utility doors are located on the west side facing Walcott Avenue. Building N144 has had some minor changes, including the addition of new access openings and the replacement of utility doors, but does not appear to have had any major alterations. Built in 1952, Building N144 has continuously served a support function as a warehouse. It was previously evaluated for eligibility for listing in the National Register of Historic Places (NRHP) in 2016. Building N144 does not meet the NRHP Criteria because it does not exhibit historical significance tied to any particular themes, events, individuals, or architectural significance related to its design, materials, type, or materials. NASA ARC determined that Building N144 was not eligible for the NRHP, and the SHPO concurred with that determination in a letter dated January 5, 2016 (NASA_2015_1120_001). The building has not acquired any additional historical or architectural significance since that determination and is not eligible for the NRHP.

5. Affected Historic Properties

No known archaeological sites are in the APE; and Building N144 is not eligible for the NRHP. No historic properties were identified in the APE.

6. Assessment of Effects

Per 36 CFR § 800.5(a)(1), an adverse effect results when an undertaking may alter, either directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the historic property's integrity.

There are no known archaeological sites in the APE, and the APE is in an area of low archaeological sensitivity. Ground disturbance for the undertaking would be limited and based on utility mapping, it appears the area has been previously heavily disturbed. Due to the proposed scope and lack of archaeological sensitivity, no archaeological historic properties would be affected by the undertaking.

No known historic properties are located in the APE. Therefore, the undertaking would not result in no historic properties affected.

7. Summary of Findings

The proposed undertaking would not alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP. Therefore, a finding of No Historic Properties Affected per 36 CFR § 800.4(d)(1) would be appropriate for this undertaking.

8. References

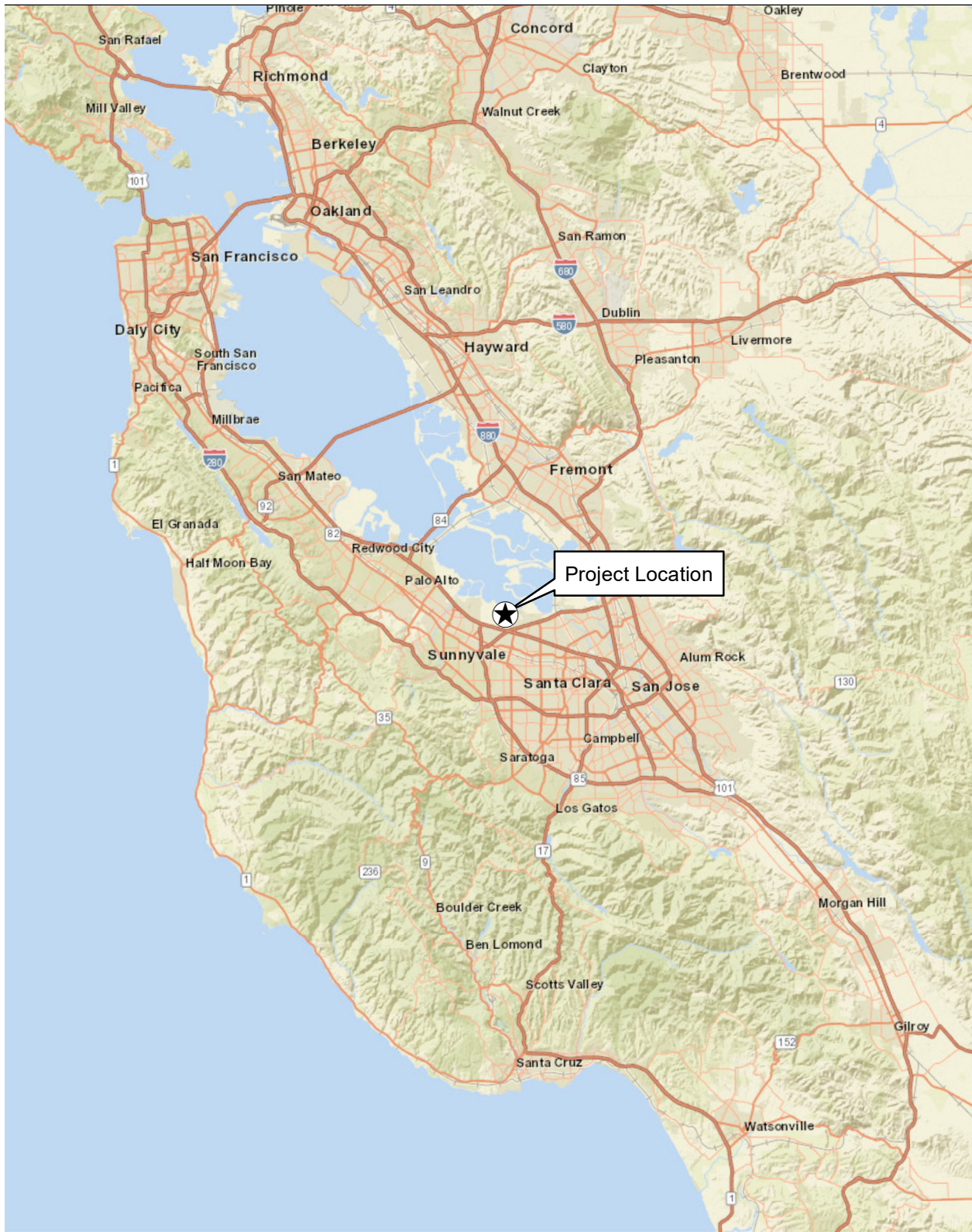
AECOM, 2014. *Integrated Cultural Resources Management Plan for NASA Ames Research Center, Moffett Field, California*. Accessible online at https://historicproperties.arc.nasa.gov/downloads/icrmp_nasa_arc_all.pdf.

AECOM, 2017. *NASA Ames Research Center Archaeological Resources Study*. Accessible online (redacted) at https://historicproperties.arc.nasa.gov/downloads/section106_archaeology_20170224_nasa_att.pdf.

Appendices

Appendix A: Figures 1–4 (Project Location, Project Site, APE, and Archaeological Sensitivity)

Appendix B: Select Project Drawings



Source: ESRI, AECOM, NASA



0 5 10 20 Miles

Scale: 1 = 633,600; 1 inch = 10 mile(s)

Figure 1
Project Location

Building N144 USGS Bay 1 Project

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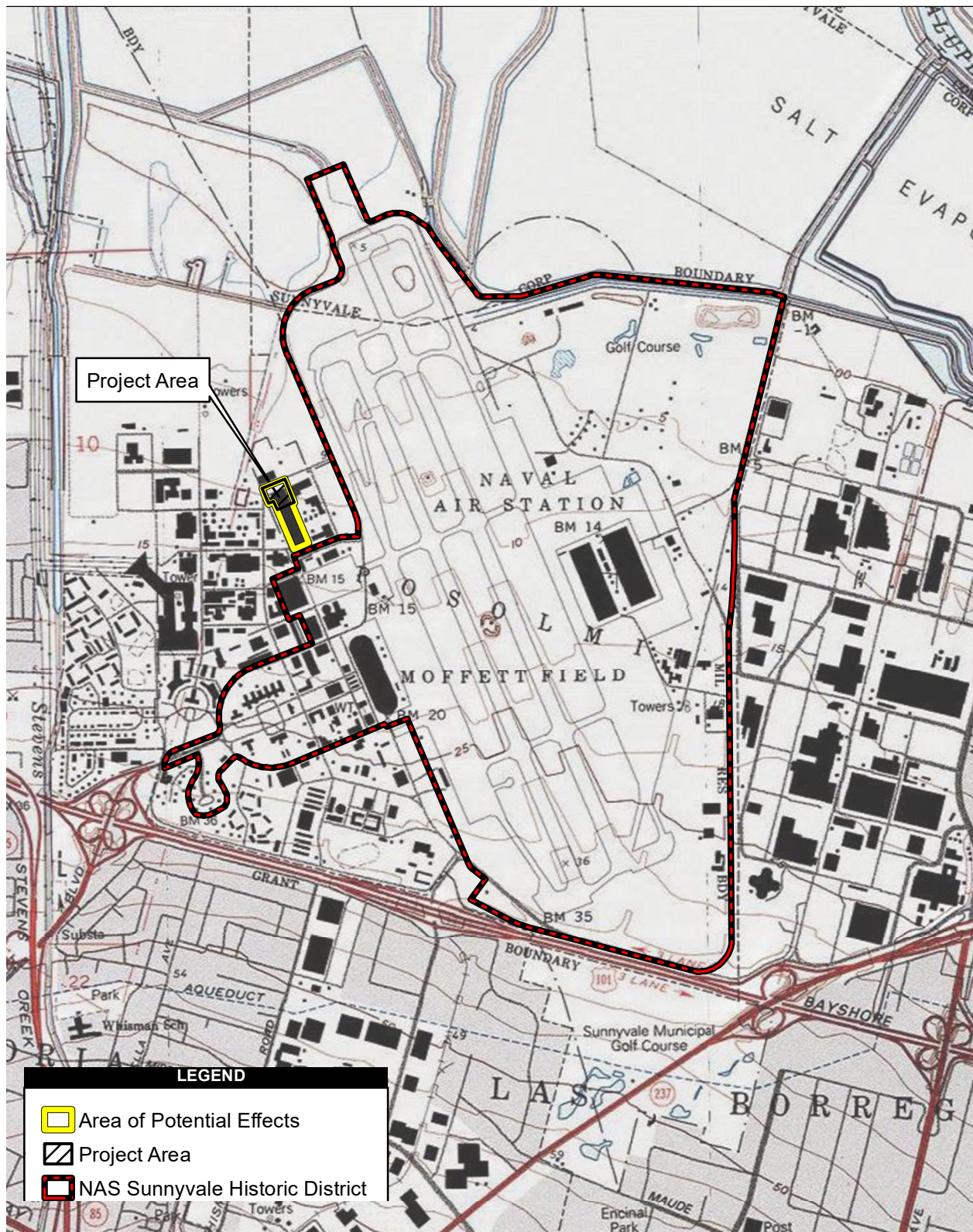


Figure 2
Project Area

Building N144 USGS Bay 1 Project

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Figure 3
APE Map

Building N144 USGS Bay 1 Project

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Figure 4
Archaeological Sensitivity Map

Building N144 USGS Bay 1 Project

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Appendix B: Select Project Drawings